

CITY OF LADUE

Building Department

To: Zoning and Planning Commission

From: Andrea Sukanek

Date: January 18, 2023

Re: Solar regulations in Ladue

Background and General Information:

Currently, solar panels are allowed in Ladue with a Building Permit. They are not regulated by the Ladue Zoning Ordinance, nor are they mentioned in the City's Architectural Guidelines. According to the Building Department records, there have been about 20 solar panel installations in Ladue over the past 5 years. This includes 8 solar installations in 2022. Since there is no guidance in the Architectural Guidelines regarding solar panels, the Architectural Review Board has not been reviewing solar installations. The majority of the existing solar installations in Ladue have been placed in inconspicuous locations such that they cannot easily be seen from the front façade of the property, and I have not heard any complaints about unsightly solar installations.

Problem/Goal:

There are concerns among some members of the community that, lacking regulations, there could be solar installations that may detract from the aesthetics of Ladue's residential neighborhoods. The goal is to try to prevent any solar installations that would cause significant neighborhood concerns and turmoil.

Guidance from Comp Plan:

Goal 6.8 of the City's Comprehensive Plan reads as follows:

Encourage the use of renewable energy and support the installment of electric vehicle charging infrastructure through incentives and zoning. Review zoning code to consider whether regulations are hindering or incentivizing the provision of new sustainable technology and renewable energy. Consider developing community + architectural guidelines for PV solar panels.

Another of the goals in the City's Comprehensive Plan is to "Preserve and Enhance the City-Wide Community Character of Ladue."

The issue of solar panels came up during the Comp Plan process as something to be encouraged in Ladue, but since character and aesthetics is also important to the City, it is reasonable that there should be some limitations on solar installations that could potential detract from Ladue's character.

Assumptions:

Ladue is a community that cares about community aesthetics and character. The Architectural Review Board reviews every external architectural change and requires that construction be well-considered, thoughtfully planned, and high-quality. It seems reasonable to expect solar installations to be treated in a similar manner. High quality solar materials should be used, and installations should be carefully planned to protect aesthetics as much as possible.

Solar panels are generally placed on the south-facing elevation of a structure to maximize the collection of solar energy. This can be a concern when the south-facing elevation is also the front façade of the structure. In these types of situations, thoughtful design decisions should help protect community character. It is possible that solar panels could be installed on a less-prominent detached structure, or that a detached solar canopy could be erected in a rear yard. The materials used and the method of installation could also minimize any possible detrimental appearance of the structure. Solar design professionals could be encouraged to “think outside the box” in order to ensure that solar installations in Ladue are not detrimental to the community aesthetic.

Ground mounted installations could potentially be allowed in rear yards if screened but are less desirable than some other options. If ground mounted solar is the only option to avoid installation on a prominent front façade and it can be well-screened from adjacent properties, it should be considered.

Solar installations change the appearance of a building, but do not change the use or the intensity of the use. They have no effect on traffic, noise, or public services, and will only be visible to those in the immediate vicinity of the installation. Because of this, it is not recommended that residential solar installations be required to obtain a SUP or formal site plan approval through Zoning and Planning or City Council.

Next steps:

The City should develop a process for approval of solar panels as well as some guidelines to be considered during project review.

Potential process for approval:

Option #1: All solar installations are to be reviewed by the City Planner and Architectural Review Board to determine consistency with the solar installation guidelines. The City Planner and ARB may approve, deny, or make recommendations for amendments to the project.

Option #2: All solar installations are to be reviewed by the City Planner and Architectural Review Board to determine consistency with the solar installation guidelines AND if a solar installation faces the right-of-way, notices shall be sent to all property owners within 185 feet of the solar installation to inform them of the project and notify them about the time and date of the ARB meeting. A sign informing residents about the project could also be posted on the property. Residents could make comments or ask questions during the ARB meeting.

Solar guidelines:

The solar guidelines should include the qualities desired in order to ensure that the solar installation is compatible with the character of the City neighborhoods. As with all other construction projects, successful projects will include a context-sensitive design and quality materials.

Specific criteria to be listed in the guidelines might include the following:

- Solar panels should be located and oriented in such a way that they will be effective for energy collection but located in a thoughtful, carefully designed manner to minimize visibility to adjacent residential properties. Orientation toward a right-of-way should be avoided whenever possible.
- On prominent building façades, such as those facing the right-of-way, solar materials should be incorporated into the roof such that the structure does not appear to have solar collectors installed on top of the roof, but, rather, solar tiles, solar shingles, or other discreetly placed solar materials, reasonably appear to make up part of the roof, skylight, or other standard building features.
- Solar panels shall not direct glare towards nearby properties or roadways. Methods used to prevent glare shall be documented in the materials submitted by the applicant (anti-reflective coating, angle of panel, screening, etc.)
- Panels should be compatible in color to the roof's materials.
- Because of the many benefits from trees, the City of Ladue does not support the removal of trees for solar installations. Any tree removal must comply with the City's tree removal regulations in Chapter 102 of the Ladue Code of Ordinances.
- Solar panels should be positioned behind architectural features, such as parapets, dormers, and chimneys to limit visibility, when feasible.
- Solar panels on a flat roof shall be screened by a parapet or other architectural feature.
- Solar panels must be flush mounted and set back from the edge of the roof in order to minimize visibility, as needed, based on the type of solar installation.
- Solar panels should be sized appropriately for the energy usage of the property. Depending on the proposed size of the solar array, information may be requested to justify the size of the proposed installation.